

ABSTRACT

A surface having specular regions shaped to reflect incident light toward an optical sensor provides an ideal surface to be scanned by an optical mouse. When light is shined upon the surface, the reflections off of the specular regions appear as white points in the image acquired by the optical sensor, which gives the optical sensor the distinguishing characteristics it needs to differentiate between images. Since the specular regions reflect light so well, less light is needed to obtain an image, and power is conserved. The surface appears as a dark background in the image, providing contrast to the light reflecting off the specular regions. To protect the specular regions, an optically transparent coating can be layered on top of the surface. An alternative surface that may be easier to manufacture is a light colored surface dotted with darker colored regions.